

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Previously Presented) An isolated nucleic acid molecule comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:2, or a complement thereof.
2. (Previously Presented) The nucleic acid molecule of claim 1, which comprises the nucleotide sequence shown in SEQ ID NO:1, or a complement thereof.
3. (Canceled)
4. (Previously Presented) An isolated nucleic acid molecule, which has at least 90% nucleotide identity with at least 700 contiguous nucleotides of SEQ ID NO:1, and which encodes a polypeptide that binds a consensus T-box site in DNA.
5. (Canceled)
6. (Previously Presented) An isolated nucleic acid molecule, which has at least 90% nucleotide identity with SEQ ID NO:1 over its full length, and which encodes a polypeptide that binds a consensus T-box site.
7. (Canceled)

8. (Previously Presented) A vector comprising the nucleic acid molecule of claim 1.
9. (Previously Presented) The vector of claim 8, which is an expression vector.
10. (Previously Presented) A host cell containing the vector of claim 9.
11. (Previously Presented) A method for producing a T-bet protein comprising culturing the host cell of claim 10 in a suitable medium until a T-bet protein is produced.
12. (Previously Presented) The method of claim 11, further comprising isolating the T-bet protein from the medium or the host cell.
- 13.-49. (Canceled)
50. (Previously Presented) The nucleic acid molecule of claim 4, wherein the polypeptide has at least one activity selected from the group consisting of: inducing IFN- γ production in CD4⁺ cells, inducing Th1-associated cytokine production, inhibiting production of IL-2, and differentiating Thp cells and Th2 cells into Th1 cells.
51. (Previously Presented) An isolated nucleic acid molecule which hybridizes to the complement of the nucleic acid molecule set forth in SEQ ID NO:1 in 6X SSC at 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 65°C under stringent conditions, wherein said nucleic acid molecule encodes a polypeptide that binds a consensus T-box site in DNA.
52. (Canceled)

53. (Previously Presented) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO:2, wherein said nucleic acid molecule encodes a polypeptide that binds to a consensus T-box site in DNA.

54. (Previously Presented) The isolated nucleic acid molecule of claim 1, further comprising a nucleotide sequence encoding a heterologous polypeptide.

55. (Previously Presented) An isolated nucleic acid molecule consisting of a fragment of at least 700 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

57. (Previously Presented) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is labeled with a detectable substance.

58. (Previously Presented) An isolated nucleic acid molecule comprising at least 700 nucleotides which is complementary to SEQ ID NO:1.

59. (Canceled)

60. (Canceled)

61. (Previously Presented) The expression vector of claim 9, comprising a constitutive promotor.

62. (Previously Presented) The expression vector of claim 9, comprising an inducible promotor.

63. (Previously Presented) The expression vector of claim 9, comprising a tissue-specific regulator element.

64. (Previously Presented) The nucleic acid molecule of claim 50, wherein the Th1-associated cytokine is selected from the group consisting of IFN γ , TNF, and Lymphotoxin.

65. (Previously Presented) The nucleic acid molecule of claim 4 or 6, wherein the identity is determined by the BLAST program using the default Blastn matrix.

66. (Previously Presented) A vector comprising the nucleic acid molecule of claim 4.

67. (Currently Amended) A vector comprising the nucleic acid molecule of claim 53 or 55 ~~claim 51 or 58~~.

68. (Previously Presented) The vector of claim 66, which is an expression vector.

69. (Previously Presented) A host cell containing the vector of claim 68.

70. (Previously Presented) A method for producing a T-bet protein comprising culturing the host cell of claim 69 in a suitable medium until a T-bet protein is produced.

71. (Previously Presented) The method of claim 70, further comprising isolating the T-bet protein from the medium or the host cell.

72. (Previously Presented) The vector of claim 67, which is an expression vector.

73. (Previously Presented) A host cell containing the vector of claim 72.
74. (Previously Presented) A method for producing a T-bet protein comprising culturing the host cell of claim 73 in a suitable medium until a T-bet protein is produced.
75. (Previously Presented) The method of claim 74, further comprising isolating the T-bet protein from the medium or the host cell.
76. (Previously Presented) The isolated nucleic acid molecule of claim 4, further comprising a nucleotide sequence encoding a heterologous polypeptide.
77. (Currently Amended) The isolated nucleic acid molecule of claim 53 ~~claim 51~~ further comprising a nucleotide sequence encoding a heterologous polypeptide.
78. (Currently Amended) The expression vector of claim 68 ~~claim 66~~, comprising a constitutive promotor.
79. (Currently Amended) The expression vector of claim 68 ~~claim 66~~, comprising an inducible promotor.
80. (Currently Amended) The expression vector of claim 68 ~~claim 66~~, comprising a tissue-specific regulator element.
81. (Previously Presented) The expression vector of claim 72, comprising a constitutive promotor.

82. (Previously Presented) The expression vector of claim 72, comprising an inducible promotor.

83. (Previously Presented) The expression vector of claim 72, comprising a tissue-specific regulator element.

84. (Currently Amended) The nucleic acid molecule of claim 53 ~~claim 54~~, wherein the polypeptide has at least one activity selected from the group consisting of: inducing IFN- γ production in CD4⁺ cells, inducing Th1-associated cytokine production, inhibiting production of IL-2, and differentiating Thp cells and Th2 cells into Th1 cells.

85. (Previously Presented) The nucleic acid molecule of claim 4, wherein the nucleic acid molecule is labeled with a detectable substance.

86. (Currently Amended) The nucleic acid molecule of claim 53 or 58 ~~claim 51 or 58~~, wherein the nucleic acid molecule is labeled with a detectable substance.

87. (New) An isolated nucleic acid molecule comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:4, or a complement thereof.

88. (New) The nucleic acid molecule of claim 1, which comprises the nucleotide sequence shown in SEQ ID NO:3, or a complement thereof.

89. (New) An isolated nucleic acid molecule, which has at least 90% nucleotide identity with at least 500 contiguous nucleotides of SEQ ID NO:3, and which encodes a polypeptide that binds a consensus T-box site in DNA.

90. (New) An isolated nucleic acid molecule, which has at least 90% nucleotide identity with SEQ ID NO:3 over its full length, and which encodes a polypeptide that binds a consensus T-box site in DNA.

91. (New) An isolated nucleic acid molecule which hybridizes to the complement of the nucleic acid molecule set forth in SEQ ID NO:3 in 6X SSC at 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 65°C under stringent conditions, wherein said nucleic acid molecule encodes a polypeptide that binds a consensus T-box site in DNA.

92. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO:4, wherein said nucleic acid molecule encodes a polypeptide that binds to a consensus T-box site in DNA.

93. (New) An isolated nucleic acid molecule consisting of a fragment of at least 500 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:3, or a complement thereof.

94. (New) An isolated nucleic acid molecule comprising at least 500 nucleotides which is complementary to SEQ ID NO:3.

95. (New) A vector comprising the nucleic acid molecule of claim 89.

96. (New) The vector of claim 95, which is an expression vector.

97. (New) A host cell containing the vector of claim 96.

98. (New) A method for producing a T-bet protein comprising culturing the host cell

of claim 96 in a suitable medium until a T-bet protein is produced.

99. (New) The method of claim 98, further comprising isolating the T-bet protein from the medium or the host cell.

100. (New) The nucleic acid molecule of claim 89, wherein the polypeptide has at least one activity selected from the group consisting of: inducing IFN- γ production in CD4+ cells, inducing Th1-associated cytokine production, inhibiting production of IL-2, and differentiating Thp cells and Th2 cells into Th1 cells.

101. (New) The isolated nucleic acid molecule of claim 89, further comprising a nucleotide sequence encoding a heterologous polypeptide.

102. (New) The nucleic acid molecule of claim 89, wherein the nucleic acid molecule is labeled with a detectable substance.

103. (New) The expression vector of claim 96, comprising a constitutive promotor.

104. (New) The expression vector of claim 96, comprising an inducible promotor.

105. (New) The expression vector of claim 96, comprising a tissue-specific regulator element.

106. (New) The nucleic acid molecule of claim 100, wherein the Th1-associated cytokine is selected from the group consisting of IFN γ , TNF, and Lymphotoxin.

107. (New) A vector comprising the nucleic acid molecule of claim 92.
108. (New) The vector of claim 107, which is an expression vector.
109. (New) A host cell containing the vector of claim 108.
110. (New) A method for producing a T-bet protein comprising culturing the host cell of claim 109 in a suitable medium until a T-bet protein is produced.
111. (New) The method of claim 110, further comprising isolating the T-bet protein from the medium or the host cell.
112. (New) The isolated nucleic acid molecule of claim 92, further comprising a nucleotide sequence encoding a heterologous polypeptide.
113. (New) An expression vector comprising the nucleic acid molecule of any one of claims 87, 90, or 93.
114. (New) A host cell containing the vector of claim 113.